

Claim 1. (Currently Amended) In combination, a tube comprising an inner wall forming a cavity adapted to contain a fluid to be subjected to centrifugation and a separator disk in said tube adapted to float freely in said fluid and separate components of said fluid having different specific gravities, said disk being made of a material having a specific gravity near the specific gravity of red blood cells and comprising a peripheral portion adjacent said inner wall of said tube and a central portion extending across at least a portion of said cavity, said central portion having an upper surface forming a closed recess configured such that after centrifugation of blood said upper surface closed recess lies just below an interface with separated red blood cells and accumulates a small layer of red blood cells.

Claim 2. (Previously presented) A combination according to claim 1 wherein said disk fits into said tube such that a gap is formed between the perimeter of said disk and the interior of said tube, said gap being of such a dimension that the component of said fluid below said disk after separation will not flow through said gap at about 1G.

Claim 3. (Original) A combination according to claim 1 further comprising a shaft extending along said tube and engaging said disk such that said disk slides along said shaft.

Claim 4. (Original) A combination according to claim 1 wherein said disk is arranged to rotate about an axis transverse to the longitudinal axis of said tube to form a valve with the side of said tube during decanting.

Claim 5. (Original) A combination according to claim 4 further comprising a shaft extending along said tube and engaging said disk such that said disk slides along said shaft.

Claim 6. (Original) A combination according to claim 4 wherein said disk includes an upper outer edge and a lower outer edge and the transverse dimension between said upper outer edge and lower outer edge is greater than the internal diameter of said tube.

Claim 7. (Previously Presented) A combination according to claim 1 wherein said upper surface is curved.

Claim 8. (Original) A combination according to claim 7 wherein said upper surface is cylindrical.

Claim 9. (Original) A combination according to claim 1 wherein said disk is shaped such that its center of buoyancy is located above said upper surface of the disk.

Claim 10. (Previously Presented) A combination according to claim 1 wherein the specific gravity of said disk is such that said upper surface lies just below an interface between plasma and red blood cells.

Claim 11. (Withdrawn) An article for use in preventing flow of a fluid from a tube, said article being generally disk shaped and having a raised edge portion such that the center of buoyancy of the article lies above an upper surface thereof.

Claim 12. (Withdrawn) A method for decanting a supernatant that has been separated from a fluid comprising the step of placing a floating separator disk in said fluid, separating said supernatant from said fluid, and decanting said supernatant wherein said separator disk automatically positions itself at or near the interface between said supernatant and the remaining components of said fluid.

Claim 13. (Withdrawn) A method according to claim 12 wherein said disk is adapted to restrict decant of said remaining components during decant of said supernatant.

Claim 14. (Withdrawn) A method according to claim 13 wherein said disk rotates during decant to a position wherein at least one edge of said disk engages a wall of a container having said fluid therein.

Claim 15. (Withdrawn) A method according to claim 13 wherein said disk forms a channel between an outer edge of said disk and an interior wall of a container having said fluid therein, said channel restricting flow of said remaining components during decant of said supernatant.

Claim 16. (Withdrawn) A method according to claim 13 wherein said disk assumes a position such that its upper surface is just below an interface between said supernatant and said remaining components.

Claim 17. (New) In combination:

a container forming a cavity extending along a longitudinal axis and configured to receive a fluid to be subjected to centrifugation, and

a separator disk in said cavity configured to move freely in said cavity in the direction of said longitudinal axis during said centrifugation and comprising a central

portion extending across said cavity transverse to said longitudinal direction, said central portion having a closed recess formed by raised inner and outer peripheral portions and a closed bottom between said portions that after centrifugation effectively separates a layer of said fluid just above said upper surface from fluid below said disk.

Claim 18. (New) A combination according to claim 17 wherein said separator disk is made of material having a specific gravity near that of red blood cells, and said upper surface lies just below an interface with said red blood cells after centrifugation.

Claim 19. (New) A method for separating plasma from red blood cells comprising the steps of providing the combination of claim 18, providing blood to the container, and subjecting said container to centrifugation.